

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. **(Original)** A polarizer device of Glan-Thompson type comprising first and second prisms made of a birefringent material having certain dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  for, respectively ordinary and extraordinary polarization axis and being coupled to each other by a binding material layer, wherein said binding material has a dispersion profile,  $n_g(\lambda)$ , matching said dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  so as to provide an effect of total internal reflection within a spectral range including short wavelength of about 190nm.

2. **(Currently amended)** The device of claim 1, wherein said prisms made of ~~A-BBO~~ $\alpha$ -BBO crystals.

3. **(Previously Presented)** The device of claim 1, wherein said first and second prisms have a cut angle  $\theta$  of about  $31^\circ$ .

4. **(Previously Presented)** The device of claim 1, wherein said binding material is RTV silicone.

5. **(Previously Presented)** The device of claim 1, wherein said binding material is a two-part material.

6. **(Previously Presented)** The device of claim 1, wherein said binding material has controlled volatility.

7. **(Previously Presented)** The device of claim 1, wherein said binding material has low viscosity.

8. **(Previously Presented)** The device of claim 1, wherein said binding material is CV15-2500 optical glue, commercially available from NuSil Technology, USA.

9. **(Previously Presented)** The device of claim 1, wherein said binding material layer has a thickness of a few microns.

10. **(Previously Presented)** The device of claim 1, wherein said binding material layer includes a mixture of an optical glue material with small beads of solid transparent material.

11. **(Original)** The device of claim 10, wherein said beads are uniformly distributed within the glue material with a surface area concentration of the beads substantially not exceeding  $10^{-6}\text{cm}^{-2}$ .

12. **(Previously Presented)** The device of claim 1, wherein each of the prisms' facets defining side facets of the

device for inputting and outputting light has a circular geometry.

13. (**Previously Presented**) The device of claim 1, wherein each of the prisms' facets defining side facets of the device for inputting and outputting light is a polygon of more than four angles.

14. (**Previously Presented**) The device of claim 1, wherein each of the prisms' facets defining side facets of the device for inputting and outputting light is an eight-angle polygon.

15. (**Original**) A polarizer device of Glan-Thompson type comprising first and second prisms made of a birefringent material having certain dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  for, respectively ordinary and extraordinary polarization axis and being coupled to each other by a binding material layer including a mixture of a binding material and small beads of a solid transparent material, wherein said binding material has a dispersion profile,  $n_g(\lambda)$ , matching said dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  so as to provide an effect of total internal reflection within a spectral range including short wavelength of about 190nm.

16. **(Original)** A polarizer device of Glan-Thompson type comprising first and second prisms made of a birefringent material having certain dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  for, respectively ordinary and extraordinary polarization axis and being coupled to each other by a binding material layer including a mixture of a binding material and small beads of a solid transparent material, wherein said binding material has a dispersion profile,  $n_g(\lambda)$ , matching said dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  so as to provide an effect of total internal reflection within a spectral range including short wavelength of about 190nm and wherein the beads being substantially uniformly distributed within the binding material layer with a surface area concentration,  $C_s$ , substantially not exceeding  $10^{-6}\text{cm}^{-2}$ .

17. **(Original)** A polarizer device comprising first and second prisms coupled to each other by their tilted surfaces; and a binding material layer between said tilted surfaces of the prisms, said layer including a mixture of a binding transparent material and small beads of a solid transparent material, the binding material layer thereby having a substantially uniform thickness of about 5-10 microns. A polarizer device having opposite side facets serving for, respectively, inputting and outputting light, wherein each of

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said side facets is either a circle or a polygon of more than four angles.

18. **(Original)** A method of manufacturing a polarizer device of Glan-Thompson type comprising providing first and second prisms made of a selected birefringent material having certain dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  for, respectively ordinary and extraordinary polarization axis, selecting a binding material having a dispersion profile,  $n_g(\lambda)$ , matching said dispersion profiles  $n_o(\lambda)$  and  $n_e(\lambda)$  so as to provide an effect of total internal reflection within a spectral range including short wavelength of about 190nm and attaching the tilted surfaces of the prisms to each other by a layer of said binding material.

19. **(Original)** A method of manufacturing a polarizer device of Glan-Thompson type comprising providing first and second prisms coupled to each other at their tilted surfaces by a binding material layer, which includes a mixture of a binding transparent material and small beads of a solid transparent material, the binding material layer thereby having a substantially uniform thickness of about 5-10 microns.

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20. **(Original)** A method of manufacturing a polarizer device of Glan-Thompson type comprising providing first and second prisms coupled to each other at their tilted surfaces by a binding material layer, which includes a mixture of a binding transparent material and small beads of a solid transparent material, the binding material layer thereby having a substantially uniform thickness of about 5-10 microns.

21. **(Currently Amended)** The method for manufacturing a polarizer device of claim 18 ~~Glan-Thompson type of any of the preceding method Claims~~ comprising configuring opposite side facets serving for, respectively, inputting and outputting light, to be either a circle or a polygon of more than four angles, thereby minimizing a footprint of the polarizer device.